

REMARKS

In this reissue application, original patent claims 1-20 were maintained. New claims 21-30 were added in a preliminary amendment filed concurrently with the application. New claims 31-38 were added in a supplemental amendment.

Claims 1-38 are pending and stand rejected. Claims 2-6 and 8-13 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

Claims 1 and 26-28 are hereby amended.

Recapture

The present application is a reissue of U.S. Patent 5,991,542 (“the ‘542 Patent”). Claims 21-38 were rejected under 35 USC 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the ‘542 Patent (Detailed Action, page 2). Applicant traverses.

Recapture analysis is performed according to a three-step process (MPEP 1412.02(I)). The first step is to determine whether, and in what respect, the reissue claims are broader in scope than the original patent claims (MPEP 1412.02(I)(1)). Here, Examiner cited three broadening aspects:

- omission of “means for creating a disk image” (Detailed Action, pp. 2-3)
- omission of “mounting” (Detailed Action, p. 3)
- omission of “is a virtual representation of said physical storage volume such that it includes volume format information” (Detailed Action, p. 3)

Assume, *arguendo*, that this is correct.

The second step is to determine whether the broader aspects of the reissue claims relate to subject matter surrendered in the original prosecution (MPEP 1412.02(I)(2)). Each broadening aspect is reviewed for this determination (MPEP 1412.02(I)(B)). The determination involves two sub-steps (MPEP 1412.02(I)(B)). The first sub-step is to determine whether applicant surrendered any subject matter in the prosecution of the original application that became the patent to be reissued (MPEP 1412.02(I)(B)(1)(A)).

If an original patent claim limitation now being omitted or broadened in the present reissue application was originally relied upon by applicant in the original application to make the claims allowable over the art, the omitted limitation relates to subject matter previously surrendered by applicant (MPEP 1412.02(I)(B)(1)(A)). To determine whether such reliance occurred, the examiner must review the prosecution history of the original application file (of the patent to be reissued) for recapture.

Here, Examiner cited one document (the Amendment that was filed July 17, 1998) as proof that surrender occurred (Detailed Action, p. 3). However, the entire prosecution history should be reviewed. A different document (the Amendment that was filed March 1, 1999) proves that surrender did not occur.

The March 1999 Amendment argued that the Office Action mailed November 27, 1998, should not have been final because the new grounds of rejection, and the application of newly cited references, were not necessitated by the amendments presented in the July 1998 Amendment (March 1999 Amendment, pp. 3-4). Specifically, the March 1999 Amendment stated:

In the previous response, the Applicants did present a number of amendments, which were purely for clarification purposes. The amendments in no way added features to or deleted features from the claimed system. In other words, despite

the amendments, the scope of the claimed invention remained essentially unchanged.

(p. 3). The Amendment continued on to explain why the claim amendments did not change the scope of the claims (pp. 3-4).

In determining whether “surrender” of subject matter has occurred, the proper inquiry is whether an objective observer viewing the prosecution history would conclude that the purpose of the patentee’s amendment or argument was to overcome prior art and secure the patent (Kim v. ConAgra Foods, Inc., 465 F.3d 1312, 1323 (Fed. Cir. 2006)). This is because the recapture rule is aimed at ensuring that the public can rely on a patentee’s admission during prosecution of an original patent (*Id.*).

Here, an objective observer viewing the prosecution history (including both the July 1998 Amendment and the March 1999 Amendment) would not conclude that the purpose of the amendments and arguments was to overcome the prior art. Instead, the objective observer would see Applicant’s statements (cited above) directly to the contrary and would understand that the amendments were for clarification purposes and did not change the scope of the claims. The observer would thus conclude that no surrender had occurred.

Therefore, no surrender occurred. Since Applicant did not surrender any subject matter in the prosecution of the original application, the analysis ends and there is no recapture (MPEP 1412.02(I)(B)(1)(A)).

On July 21, 2009, Examiner and the undersigned attorney had a telephone interview during which they discussed the recapture rejection. Examiner took the position that the claim amendments made in the July 1998 Amendment did not change the scope of the claims and did not cause a surrender of subject matter. However, he also asserted that the arguments made in the

July 1998 Amendment did cause a surrender of subject matter. Specifically, Examiner felt that when Applicant argued each and every limitation of a claim, this caused surrender of subject matter for each and every limitation of the claim.

No agreement was reached.

Rejection under 112, ¶2

Claims 1-15 and 26-28 were rejected under 35 USC 112, ¶2, as indefinite.

Claim 1 recited “means for creating a disk image.” Examiner stated that this claim element was a means-plus-function limitation that invoked 35 USC 112, ¶6. Examiner also stated the written description failed to clearly link or associate the disclosed structure, material, or acts to the claimed function. Claims 2-15 depend from claim 1 and were rejected for the same reason.

Claim 1 has been amended as follows: “[means] a controller for creating a disk image.” This amendment is supported by the specification at, for example, column 3, lines 55-58. No new matter has been added. Claims 1-15 now comply with 35 USC 112, ¶2.

Claims 26-28 each depended from claim 24 and recited “the first format ... and the second format.” Examiner stated that there was insufficient antecedent basis for these limitations. Claims 26-28 have each been amended to depend from claim 25 and now comply with 35 USC 112, ¶2. Claim 26 has also been amended to correct a typographical error (changing “a uncompressed” to “an uncompressed”).

Rejection based on Willman and Whiting

Claims 1, 7, 14, 16, 20-25, and 29-38 were rejected under 35 USC 103(a) as unpatentable over Willman in view of Whiting. Applicant respectfully traverses. As amended, claim 1 recites:

A system for accessing computer-readable files stored on a source device, by a plurality of target computers comprising:

- a controller for creating a disk image of the source device, wherein said source device is a physical storage volume on which said computer-readable files to be accessed by said plurality of target computers are located, and for storing said disk image on a storage device that is accessible to said plurality of target computers, wherein said disk image is a virtual representation of said physical storage volume such that it includes volume format information that reflects the format of said physical storage volume, and which enables said disk image to be mounted at each of said plurality of target computers; and
- a disk image driver at each of said plurality of target computers having access to file format information which enables said target computers to read files, which exhibit different file formats, contained on said disk image.

Claim 1 recites, in part, “a disk image driver at each of said plurality of target computers having access to file format information which enables said target computers to read files, which exhibit different file formats, contained on said disk image.” The hypothetical combination of Willman and Whiting does not disclose, teach, or suggest this claim element.

When a disk image 30 is mounted, a driver 50 is used to perform the task of providing data to the image file and retrieving data therefrom (Specification, 5:43-45, FIG. 3). Communications with the disk image 30 are carried out through an associated driver 50 (5:48-49; FIG. 3). Once loaded, the driver 50 performs the actual mounting operation (e.g., storing the volume information in an allocated portion of memory) (5:52-54).

To permit the disk image 66 to be mounted and read at the client computers, the disk driver 50 for reading disk images is provided with information relating to different disk formats (Specification, 8:11-14). For this purpose, when the driver is first opened, it loads a table that contains a list of file types that it is capable of recognizing (8:15-17). For each type, the table

contains entries which provide the information needed to access data in files of that type, e.g., how to identify the beginning and end of a block of data (8:17-20).

Willman discusses dynamic volume tracking in an installable file system (Willman, title). In a computer system 100, an application 152 generates a file system request that is processed by a kernel 154 (4:14-16, FIG. 1B). The kernel 154 routes the request to an appropriate file system driver (FSD) 156-170 (4:16-17; FIG. 1B). The installable FSD is analogous in many ways to a device driver (4:51-52). Once an FSD is installed and initialized, the kernel communicates with it in terms of logical requests for file opens, reads, writes, etc. (4:61-64). The FSD translates these requests using control structures and tables found on the volume itself into requests for sector reads and writes for which it can call special kernel entry points called File System Helpers (FsHlps) (4:64-68). The kernel passes the demands for sector I/O to the appropriate device driver and returns the results to the FSD (4:68-5:2).

Each volume is associated with an appropriate FSD as follows: When a volume is first accessed, the kernel presents identifying information from the volume to each of the FSDs serially until an FSD recognizes the information (Willman, 5:5-11). Specifically, each FSD is “polled” for volume file system recognition by calling the FS_Mount entry point (15:4-5; 22:1-3, 39-40; 25:17-20, 62-63). When an FSD claims the volume, the volume is mounted, and all subsequent file I/O requests for the volume are routed to the FSD that claimed the volume (5:11-14).

Claim 1 recites, in part, “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.” Note that claim 1 recites a single disk image driver that enables target computers to read files of different

formats. As discussed above, Willman discloses multiple file system driver (FSDs), each of which is able to interface with one particular type of file system.

Examiner argues that Willman discloses a “container object” that corresponds to the claimed element “disk image driver” (Detailed Action, p. 7). Specifically, Examiner argues that Willman’s “FSD chain” is a container object that corresponds to the claimed element “disk image driver” and that this FSD chain has access to each FSD within the chain (which would correspond to the claimed element “file format information”). Applicant disagrees.

Willman repeatedly uses the concept of a group of FSDs. Sometimes the group is referred to as a “list” (17:28-30; 22:4), and sometimes it is referred to as a “chain” (20:55-58; 22:25-27). However, the chain (or the list, for that matter) is never discussed as being a “container object” that encompasses all of the individual FSDs. Rather, each FSD exists separately, and the FSDs are “iterated through” or “looped through” to determine which one (if any) recognizes a particular volume’s file system (17:28-30; 22:4; 20:55-60).

At best, Willman discloses a kernel and multiple FSDs, where the kernel determines which FSD is needed to read a particular storage volume. Willman does not disclose, teach, or suggest a single driver that enables a computer to read files of different formats. It follows that Willman does not disclose the claimed element “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.”

Whiting does not remedy this deficiency. Whiting discusses transparently compressing data files in a computer system (Whiting, title). A portion of an existing disk drive is reserved by creating a large file, known as a Compressed Disk Image File (CDIF), on the drive (1:68-2:2). A data compression device driver is assigned a new drive letter by the operating system (2:2-3).

The CDIF is accessed using the drive letter assigned to the data compression device driver (3:56-58). The device driver performs all data compression and decompression transparently, with all disk accesses physically performed within the CDIF (2:5-8).

Claim 1 recites, in part, “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.” Whiting discusses a driver (data compression device driver) that accesses data within an image file (Compressed Disk Image File – CDIF). However, Whiting does not disclose that the driver has access to file format information that enables a computer to read files that exhibit different file formats. It follows that Willman does not disclose the claimed element “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.”

Therefore, claim 1 is patentable over the hypothetical combination of Willman and Whiting. Independent claims 16, 21-22, 25, and 29-31 recite similar language and are also patentable over Willman and Whiting for at least the same reasons.

Rejection based on Willman, Whiting, and Murphy

Claims 15 and 17-19 were rejected under 35 USC 103(a) as allegedly being unpatentable over Willman in view of Whiting and Murphy. Applicant respectfully traverses.

As explained above, the hypothetical combination of Willman and Whiting does not disclose the claimed element “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.”

Murphy does not remedy this deficiency. Specifically, Murphy does not disclose a disk image driver that enables a computer to read files that exhibit different file formats.

Thus, claims 15 and 17-19 are patentable over the hypothetical combination of Willman, Whiting, and Murphy.

Rejection based on Willman, Whiting, and Official Notice

Claims 26-28 were rejected under 35 USC 103(a), as allegedly being unpatentable over Willman in view of Whiting and Official Notice. Applicant respectfully traverses.

As explained above, the hypothetical combination of Willman and Whiting does not disclose the claimed element “a disk image driver ... having access to file format information which enables said target computers to read files, which exhibit different file formats.”

Official Notice does not remedy this deficiency. Specifically, Official Notice does not disclose a disk image driver that enables a computer to read files that exhibit different file formats.

Thus, claims 26-28 are patentable over the hypothetical combination of Willman, Whiting, and Official Notice.

Examiner is invited to contact the undersigned in order to advance the prosecution of this application.

Respectfully submitted,
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Dated: July 30, 2009

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